Patent Attorney's Docket No. 021565-075

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Frank MEULEWAETER et al.

Application No.: 09/551,494

Filed: April 18, 2000

For: METHODS AND MEANS FOR

DELIVERING INHIBITORY RNA

TO PLANTS AND APPLICATIONS

THEREOF

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. §1.56, applicants hereby submit the following information in conformance with 37 C.F.R. §§ 1.97 and 1.98.

The documents listed below were cited in parent application No. 09/294,022. Copies of these documents are not enclosed, in accordance with 37 C.F.R. §1.98(d), so as not to overburden the file wrapper of the present application.

By citation of the copending application confidentiality therein is not waived and the Office is requested to maintain the confidentiality of the copending application. 35 U.S.C. §122.

U.S. Patent Nos.

5,034,323

5,190,931

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5,231,020

5,283,184

5,500,360

Foreign Patent Nos.

WO 93/03161

WO 93/23551

WO 95/34668

WO 96/22364

WO 97/49814

WO 98/53083

WO 99/07865

EP 0 194 809

EP 0 223 399

EP 0 240 208

EP 0 467 349

EP 0 647 715

Articles and Publications

Angell and Baulcombe, "Consistent Gene Silencing in Transgenic Plants Expressing a Replicating Potato Virus X RNA", *EMBO Journal*, Vol. 16, No. 12, pp. 3675-3684 (1997)

Baulcombe, "Mechanisms of Pathogen-Derived Resistance to Viruses in Transgenic Plants", *Plant Cell*, Vol. 8, pp. 1833-1844 (1996)

Baulcombe et al., "Virus-Induced Gene Silencing", *JIC&SL Annual Report* (1996/1997)

Bringloe et al., "The Nucleotide Sequence of Satellite Tobacco Necrosis Virus Strain C and Helper-Assisted Replication of Wild-Type and Mutant Clones of the Virus", *Journal of General Virology* Vol. 79, pp. 1539-1546 (1998)

Chapman, Ph.D. Dissertation "A Molecular Analysis of Potato Virus X", University of Cambridge, UK (1991)

Coutts et al., "The Complete Nucleotide Sequence of Tobacco Necrosis Virus Strain D" J. Gen. Virology Vol. 72, pp. 1521-1529 (1991)

Danthinne et al., "Structural Similarities Between the RNAs of Two Satellites of Tobacco Necrosis Virus" *Virology*, Vol. 185, pp. 605-614 (1991)

Depicker et al., "Post-Transcriptional Gene Silencing in Plants" *Curr. Opin. Cell. Biol.* Vol. 9, pp. 373-382 (1997)

English et al., "Suppression of Virus Accumulation in Transgenic Plants Exhibiting Silencing of Nuclear Genes", *Plant Cell*, Vol. 8, pp. 179-188 (1996)

Hamilton et al., "A Transgene With Repeated DNA Causes High Frequency Post-Transcriptional Suppression of ACC-Oxidase Gene Expression in Tomato" *Plant Journal* Vol. 15, No. 6, pp. 737-746 (1998)

Kempin et al., "Targeted Disruption in *Arbidopsis*", *Nature* Vol. 389, pp. 802-803 (1997)

Kumagai et al., "Cytoplasmic Inhibition of Carotenoid Biosynthesis With Virus-Derived RNA" *Proc. Natl. Acad. Sci. USA*, Vol. 92, pp. 1679-1683 (1995)

Meulewaeter et al., "Genome Structure of Tobacco Necrosis Virus Strain A", *Virology* Vol. 177, pp. 699-709 (1990)

Prashar et al., "Analysis of Differential Gene Expression by Display of 3' End Restriction Fragments of cDNAs", *Proc. Natl. Acad. Sci. USA*, Vol. 93, pp. 659-663 (1996)

Ruiz et al., "Initiation and Maintenance of Virus-Induced Gene Silencing", *Plant Cell*, Vol. 10, pp. 937-946 (1998)

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Stam et al., "The Silence of Genes in Transgenic Plants", *Annals of Botany*, Vol. 79, pp. 3-12 (1997)

Takayuki et al., "Construction of an Equalized cDNA Library from *Arabidopsis thaliana*", *Plant Journal* Vol. 8, No. 5, pp. 771-776 (1995)

Waterhouse et al., "Virus Resistance and Gene Silencing in Plants Can be Induced by Simultaneous Expression of Sense and Antisense RNA", *Proc. Natl. Acad. Sci. USA*, Vol. 95, pp. 13959-13964 (1998)

Wellink et al., "Cowpea Mosaic Virus Derived Expression Vectors", *Proc. Natl. Acad. Sci USA* Abstract presented at the Joint Meeting of Arbeitskreis Virologie and Nederlandse Kring voor Plantenvirologie in Wageningen, The Netherlands, November 12 and 13, 1998

Ysebaert et al., "Total Nucleotide Sequence of a Nearly Full-size DNA Copy of Satellite Tobacco Necrosis Virus RNA" *J. Mol. Biol.* Vol. 143, pp. 273-287 (1980)

The documents are being submitted within 3 months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later, therefore no <u>fee</u> or certification is required under 37 C.F.R. § 1.97(b).

To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialled copy of this form be returned to the undersigned.

Respectfully submitted,

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By:

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Date: July 6, 2000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
Frank MEULEWAETER et al	Group Art Unit: Unassigned
Application No.: 09/551,494)) Examiner: Unassigned
Filed: April 18, 2000))
For: METHODS AND MEANS FOR DELIVERING INHIBITORY RNA TO PLANTS AND APPLICATIONS THEREOF)))

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL LETTER

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

Enclosed is an Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

[X]	No additional fee for submission of an IDS is required.	
[]	The fee of \$240.00 (126) as set forth in 37 C.F.R. § 1.17(p) is also enclosed.	
[]	A certification under 37 C.F.R. § 1.97(e) is also enclosed.	
[]	A certification under 37 C.F.R. § 1.97(e), a petition requesting consideration of the information disclosure statement, and the petition fee of \$130.00 (122) as set forth in 37 C.F.R. § 1.17(i) are also enclosed.	
[]	Charge \$ to Deposit Account No. 02-4800 for the fee due.	
[]	A check in the amount of \$ is enclosed for the fee due.	

Information Disclosure Statement Transmittal Letter

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The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R.

§§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

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